REMARKS

In response to the Official Action of December 9, 2004, claims 1, 12 and 17 have been amended and a slight amendment has been made in the specification at page 5, lines 19-21. The amendments to claims 1, 12 and 17 are simply to use the definite article "a" when first reciting the phrase "quality target," and to add the phrase "of time" after the word "period" for purposes of clarity. The amendment to the specification at page 5, lines 19-21 is to correct minor errors in the text. No new matter is added (the "period" is over time as discussed at page 9, lines 28-32).

For the reasons set forth below, applicant respectfully requests reconsideration of the rejection of claims 1-17 as obvious under 35 U.S.C. §103(a) in view of US patent 6,529,482, Lundby, in view of US patent 6,493,541, Gunnarsson et al (hereinafter Gunnarsson), further in view of US patent 6,490,461, Müller. Applicant's attorney notes at paragraph 3 regarding claims 1 and 3 that the Examiner states that Lundby discloses a method of controlling at least one transmission parameter of a connection between a transmitting station and a receiving station in a communication system. The Examiner further notes that Lundby discloses determining from the received transmission signal whether there exists a power up requirement or a power down requirement, but goes on to note that Lundby does not disclose the feature of monitoring the distribution of the power up and power down requirements over a period of time and in the event that a predetermined form of distribution is detected, changing a quality target for the received signal. The Examiner goes on to state at page 3, line 7 through page 8, line 13 that this deficiency in Lundby is made up for by Gunnarsson (please note that the Examiner's reliance on Bark et al at page 3, line 7 is believed to be an error and that the statement is with regard to Gunnarsson) and Müller. Applicant's attorney respectfully disagrees.

In Gunnarsson, transmit power control is disclosed wherein the method described attempts to compensate for delays occurring between a radio transmitter and a receiver in a power control process by adjusting a quality value of a received signal based on one or more previous power control commands already sent, but for which the effect has not yet been

experienced (see abstract of Gunnarsson). As noted by the Examiner, Gunnarsson describes a method in which the power commands alternate every other command between a power up and a power down command. Thus, Gunnarsson makes no attempt to detect a predefined form of distribution of the power up and power down requirements over a period of time so as to use this monitored distribution to change a quality target for the received signal in the event that a predefined form of the distribution is detected. Thus, although Gunnarsson as noted by the Examiner at page 3 of the Official Action, discloses that a signal quality parameter may be adjusted by a processing entity, such as the transmit power controllers 72 and 98 in Figures 4 and 5, according to a most recently issued power command (block 102), there is no disclosure or suggestion in Gunnarsson that a distribution of the power up and power down requirements are made over a period of time and in the event that a predefined form of that distribution is detected, a quality target for the received signal is changed. Rather, Gunnarsson merely detects a signal quality parameter (such as signal-to-interference ratio SIR) of a received signal and based upon the detected signal quality adjusts the signal quality parameter. There is no disclosure or suggestion of determining the distribution of power up and power down requirements nor, in the event that a predefined form of distribution is detected, changing a quality target for the received signal. Therefore, Gunnarsson is not believed to make up for the deficiencies in Lundby.

As noted at the bottom of page 3 through page 4 of the Official Action, Müller is also directed to power control based on combined quality estimates. In Müller, it is disclosed that signal-to-interference sampling may be used to provide rapid power control adjustment while bit error rate and frame error rate factors can provide less speedy, but better power control adjustments. The Examiner goes on to state that it would be obvious to a skilled person in the art to provide more accurate power control by combining the sampling of bit error rate and frame error rate as disclosed in Müller with the method of Lundby to determine power control.

However, it is respectfully submitted that the bit error rate and frame error rate determinations made in Müller do not amount to a disclosure or suggestion of monitoring the distribution of power up and power down requirements and, in the event that a predefined form

of distribution is detected, changing a quality factor as defined in claim 1 of the present application. The monitoring of the distribution of the power up and power down requirements over a period of time is based upon the monitoring of the distribution of power up and power down requirements and the deviations from an average distribution such as that shown in Figure 3 of the present application. As disclosed, if a particular predefined form of distribution is detected (for example that the form of distribution deviates by a predetermined amount from an average) a quality target can be changed such as to prevent it from rising or returning to a default value. Thus, in a situation where the transmission power is limited or the transmitting power is much too high, deviations from the average distribution of power up and power down requests are detected and used to prevent a quality target from being set too high or too low (see specification at page 10, line 32 through page 11, line 20). Thus, by means of the present invention, it is possible to prevent unnecessarily high power levels after, for instance, a temporarily weak wireless connection has returned to its normal quality. It is also possible to prevent an unnecessary rise in power level when it is not possible for the transmitting station to provide additional power (see page 7, lines 1-12 of the present application). Thus, the monitoring distribution of the power up and power down requirements over a period of time as set forth in claim 1, and in the event that a predefined form of the distribution is detected, changing a quality target for the received signal, gives rise to the advantageous properties as disclosed in the present invention.

Although Müller provides an alternative method which also attempts to improve the control of power adjustments, it provides no suggestion that this can be done by monitoring the distribution of power up and power down requirements over a period of time. According to the method disclosed in Müller, a rise in the bit error rate and frame error rate leads to an increase in a quality target regardless of the distribution of power up and power down requirements. Thus, Müller provides no motivation to a skilled person to monitor the distribution of power up and power down requirements and in the event that a predefined form of the distribution is detected, to change a quality target for the received signal.

In view of the foregoing, it is respectfully submitted that claim 1 is not obvious in view of Lundby further in view of Gunnarsson and Müller.

Since independent claim 1 is believed to be distinguished over the cited art, it is respectfully submitted that dependent claims 2-11 are also distinguished over the cited art due to their dependency from claim 1.

For the same reasons presented above with respect to claim 1, it is respectfully submitted that amended claim 12 is neither disclosed nor suggested by Lundby further in view of Gunnarsson (the Examiner references Bark et al but it is believed that the reference is actually to Gunnarsson et al) and further in view of Müller. Again, neither Müller nor Gunnarsson disclose or suggest monitoring the distribution of the power up and power down requirements over a period of time and means for changing a quality target of the transmission in the event that the means for monitoring detect a predefined form of distribution in the monitored distribution.

Since claim 12 is believed to be distinguished over the cited art, dependent claims 13-16 are also believed to be distinguished over the cited art.

For similar reasons, independent claim 17 is believed to be distinguished over Lundby in view of Gunnarsson (the Examiner references Bark et al but it is believed that the reference is actually to Gunnarsson et al) further in view of Müller since neither Lundby, Gunnarsson nor Müller disclose or suggest means for monitoring the distribution of the power up and power down requirements over a period of time, as well as means for generating and transmitting a request for a change in a quality target to the transmitting station in the event that the means for monitoring detect a predefined form of distribution in the monitored distribution.

Referring now to paragraph 4 of the Official Action, it is respectfully submitted that the prior art made of record and not relied upon does not alone or in combination with the previously cited art, disclose or suggest the present invention as claimed. Thus, US patent 6,628,956, Bark et al[1] is directed to an adaptive power control and radio communication system where during

[1] This reference was cited at paragraph 4 of the Official Action but was not referenced in the Form PTO-892.

lower traffic loads, a higher transmission power is permitted and for higher traffic loads, a lower power level is set. There is not disclosure or suggestion in Bark et al for monitoring the distribution of the power up and power down requirements over a period of time and changing a quality target of a transmission in the event that the monitoring detects a predefined form of distribution. US patent 5,862,489, Aalto is also directed to a power control method and arrangement for handover in a mobile communication system wherein the transmitting power level of the mobile station following handover is lower than the maximum transmitting power level of the target cell by an amount equal to the difference between the optimum level of the uplink signal of the target cell and the measured received level of the downlink signal of the target cell as measured prior to the handover. Again, the features of the present invention concerning monitoring the distribution of the power up and power down requirements over a period of time and in the event a predefined form of the distribution is detected, changing a quality target of the received signal, is neither disclosed nor suggested by Aalto.

Finally, US patent 5,056,109, Gilhousen, et al, is directed to a method and apparatus for controlling transmission power in a CDMA cellular mobile telephone system wherein the transmitter power is adjusted at the mobile unit in an opposite manner with respect to increases and decreases in received signal power and wherein a power control feedback scheme may be used. In addition, a command signal is generated at the cell-site and transmitted to the mobile unit for further adjusting mobile unit transmitting power corresponding to deviations in the cell-site received signal power. Such a method of adjusting power is unlike that disclosed and claimed in the present application.

The remaining references cited in PTO-892 do not make up for the deficiencies previously referred to in Lundby, Gunnarsson and Müller.

In view of the foregoing, it is respectfully submitted that the present application as amended is in condition for allowance and such action is earnestly solicited.

Respectfully submitted,

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